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## (12) United States Patent

Dorner et al.

**METHODS** 

## (54) BLENDED REALITY SYSTEMS AND

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### (58) Field of Classification Search

None

See application file for complete search history.

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ABSTRACT

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Systems and methods are provided for generating a blended reality view to a user, the blended reality view combining images reflected by a mirror with images transmitted from a screen behind the mirror. Systems for generating blended reality views can include a display device with a screen positioned behind a mirror. The display device can generate a pattern of illumination and non-illumination on the screen so that the illuminated portions of the screen substantially transmit through the mirror. Projectors can be used to illuminate objects in front of the mirror so that the illuminated objects are reflected by the mirror. In combination, the portions of the screen transmitted through the mirror and the illuminated objects reflected by the mirror can provide a blended reality view to a user viewing the mirror.

### 20 Claims, 10 Drawing Sheets



